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HIST 214-102: Technology and Culture in American History

Jason Chernesky

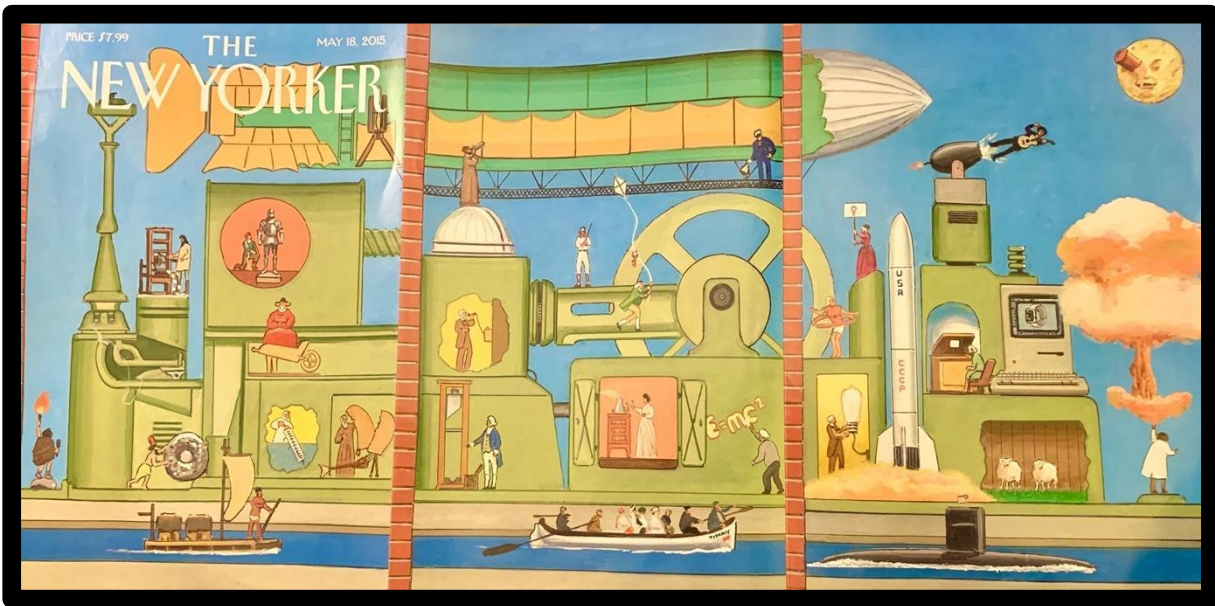
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HIST 214: Technology and Culture in American History



Professor: Jason M. Chernesky

Classroom: On Webex

Time: Mondays, 6:00-8:50 pm

Office Hours: Mondays 3:00pm – 4:30 pm and by appointment

Contact: jasonche@sas.upenn.edu

Course Description:

This course examines the relationship between technology and society throughout the history of the United States. Through discrete historical case studies, we will analyze the roles and impacts of major technological innovations within their cultural and historical contexts. In doing so, we will seek to understand how those contexts shaped and were shaped by technologies like electricity, railroads, computers, nuclear weapons, and others. Through our lectures and discussions, we will highlight the ways in which various technologies articulated, exacerbated, and undermined social identities and relationships of power. Through our exploration and interrogation of the historical case studies in the course, we will learn to critically assess the meaning of the various technologies and technological systems that have been part of our nation's past and present.

Learning Objectives:

By the end of this course students will be able to:

- Identify, analyze, and deploy secondary sources to make historical arguments and analyses

- Practice the skills necessary to analyze, discuss, and write about primary and secondary sources related to the study of American culture and technology
- Identify, analyze, and differentiate key terms and ideas in the history of technology
- Demonstrate understanding of the relationship between technology and American society at various points in US history; and how that history helps us understand our relationships with technologies and technological systems in the 21st century

Course Materials:

- All course materials are available on Canvas

Assignments

You must complete all assignments to pass the course. Failure to do so will result in an automatic failing grade (F).

Course Participation – 35%

- **Discussion Questions—3 X 5% = 15%**
For each class meeting, a group of student will be required to submit discussion questions to Canvas 24 hours before class. Each individual student will be responsible for submitting discussion questions three times throughout the semester. Each student will provide two questions per class. One will be related to the secondary source readings. The other, using the secondary sources, will provide an insightful question about the primary source. The goal of this assignment is for you to generate informed and thoughtful questions that we can use to generate in-class conversations.
- **Class Participation—20%**
In-class discussions, coupled with the discussion questions, represent two important pillars for the course. The course is meant to be interactive, and our discussions of the materials are central to how we understand, interpret, and formulate our own ideas about the history of technology in American culture. This means that attendance is mandatory. Given that this course meets once a week, you will be allowed only one unexcused absence.

Participation will be assessed on the quality of contributions to class discussions, discussion questions, and activities. Quality participation includes the following:

- Understanding the historical context of the readings and lecture
- Providing discussion questions that thoughtfully interrogate the readings
- A willingness to critically engage with, and assess, course readings and lectures
- Abiding by classroom conduct policy (see course policies)

Bi-Weekly Reading Quizzes – 5 X 3 % = 15%

Beginning on week three, we will have bi-weekly quizzes that are used to assess reading comprehension. These short and straightforward quizzes are not comprised of “gotcha” questions. They are designed to ensure that you are comprehending the course readings. The

quizzes will consist of one question per reading that preceded and included the day of the quiz. Quizzes will be taken on Canvas.

Midterm Reflection Paper – 25% Due Monday, March 1 (Week 6)

The midterm reflection paper is designed to assess how you are engaging with the course materials, themes, and goals. The paper will be 5-7 pages, double-spaced, with one-inch margins. The paper will address a specific question related to the material covered up to Week 6. The details of the paper will be found on Canvas, but the main goal of the assignment is designed to assess how students construct arguments, analyze course materials, and are thinking critically about technology in the past and present.

Final Paper: the history of technology and popular culture – 25% Due Monday, May 10

One of the best ways to see how a society projects its hopes and fears onto technologies, and technological systems, is by looking at the works of popular culture that are produced by that society – for our purposes, the United States. In your final paper, therefore, you will apply the skills learned in the course to historically interpret a piece of contemporary popular culture. You can choose a film, novel, television series, music, podcast series, memoir, or a long-form magazine article. The goal of the assignment is for you to interrogate and critically assess your primary source, and consider the ways in which technologies are portrayed and discussed. The paper will be 6-8 pages in length, double spaced, with one-inch margins. The paper also requires you to use materials from the course and other secondary source materials.

Due on Week 7: You will submit the type of source you are going to use for the final paper on **Monday, March 8**. You will provide, on Canvas, a 500-word description of the source, how it relates to the course, and how you intend on using it for the final assignment.

Grading

Assignment Submission Guidelines:

Late Assignments: Assignments will lose 1/2 of a grade for every day late (A to B+; B to C+; etc.). Papers will not be accepted more than 1 week late.

Paper Formatting:

All papers must be typed, double-spaced, 12 pt font (Times New Roman or Arial) with 1-inch margins.

Grading Scale

89.5 – 100	A	69.5 – 76.4	C
86.5 – 89.4	B+	59.5 – 69.4	D
79.5 – 86.4	B	59.4 – 0	F
76.5 – 79.4	C+		

Course Policies

Attendance:

Students are expected to attend all course meetings on time unless receiving prior authorization. Missing class will not only adversely affect your class participation grade but will prevent you from learning course content and skills. This policy refers to all absences, including missing class because you are ill or have a family emergency. However, if you miss class to attend an NJIT sponsored event, to observe a religious holiday, or documented illness such absences will be excused. For these absences to count as excused, you must receive permission from the instructor in advance or provide a doctor's note in the case of sickness or other documentation to support an excused absence.

Classroom Conduct and Online-Learning:

Course conduct can be summed up in one word: respect. In this course, we welcome intellectual inquiry and thoughtful discussion of difficult questions and subject matter, but hate speech and disrespectful comments will not be tolerated. We must approach the course, course materials, and each other, with an open mind, a willingness to learn, and fundamental respect for the humanity of each person in the room and the historical actors we discuss.

I know that online learning can be difficult and/or frustrating; it is for instructors as well. But in order for you to optimize your learning in this course, all cameras must be on while in class. If there are circumstances that prevent you from leaving your computer, tablet, or phone camera on while attending class, you must let me know ahead of time or just before class begins. Partial credit will be given for students that attend class, but do not have their cameras on.

Academic Integrity:

An essential part of NJIT's policy of academic integrity is that students demonstrate honesty and integrity in their courses. It is also a policy that will serve you in good stead in the rest of your personal and professional life. Turning in a paper that includes plagiarism, was written by someone else and passed off as your own work, or cheating on an examination will result in a 0 for that assignment. All cases of suspected plagiarism/cheating will be reported to the office of the Dean of Students for investigation. If you're unclear on what constitutes an honor code violation, please see the university policy on academic integrity at:

<https://www.njit.edu/policies/sites/policies/files/academic-integrity-code.pdf>

Office Hours and Email Policy:

My office hours are Mondays, 3:00pm—4:30pm, and by appointment. If you cannot meet during my scheduled office hours, email me a time and date that works for you, and I will try to accommodate.

The best way to reach me is through email, which is located at the top of the syllabus. I will respond to all emails within 24 hours.

Students with Disabilities or Special Needs:

Students who have disabilities or special needs should contact NJIT's Student Disability Services to help procure accommodations in completing coursework. The center can be found at <http://www.njit.edu/counseling/services/disabilities.php>.

Other Resources: There are several writing assignments both big and small for this course, and if you need them, the [Writing Center](#) can provide you with help on every part of the writing process. Also, please don't hesitate to drop by my office hours or send me an email if you're having difficulties.

We all need a support network. If you need them, the [Center for Counseling and Psychological Services](#) (C-CAPS) in Campbell Hall, Room 205, is available to listen and to help.

Schedule of Classes

Week 1: Monday, January 25 – What is technology and how do you study it?

Lecture/Discussion:

- Introduction/What is Technology?/Theories of Technology

Readings:

- Secondary Sources:
 - Sally Wyatt, "Technological Determinism is Dead; Long Live Technological Determinism" in *Philosophy of Technology* (2014) 456—463. The Myth of
 - David Edgerton, "Introduction" and "Significance," in *The Shock of the Old*, ix-xviii; 1—27.

Week 2: Monday, February 1: Early America

****Group 1 Discussion Questions Due****

Lecture/Discussion:

- First Contact, Farms, and Artisans

Readings:

- Secondary Sources:
 - Shammas, Carole. "How Self-Sufficient Was Early America?" *The Journal of Interdisciplinary History* 13, no. 2 (1982): 247-72
 - Heather A. Haveman, *Magazines and the Making of America: Modernization, Community, and Print Culture, 1741-1860*, pp. 57-86
- Primary Sources: Print Ephemera: in-class exercise
 - Choose three documents from the link below Printed Ephemera, 1763-1800 - <https://www.loc.gov/collections/broadsides-and-other-printed-ephemera/>
 - We address the following questions for each document you chose:
 - When is it from?
 - What is the topic?

- Who is the intended audience of the image?
- What does the image communicate about American culture in that time and place? How does it do so?
- How does it relate to the readings we read for class?

Week 3: Monday, February 8 – Factories and Slavery

****Group 2 Discussion Questions Due****

****Reading Quiz****

Lecture/Discussion:

- Early Industrialism

Readings:

- Secondary Sources:
 - Richard Follett, “Slavery and Technology in Louisiana’s Sugar Bowl,” in Susanna Delfino and Michelle Gillespie, eds., *Technology, Innovation, and Southern Industrialization: From the Antebellum Era to the Computer Age*, selections
 - Ruth Cowan, “The Invention of Housework: The Early Stages of Industrialization,” in *More Work for Mother*, 40—68
- Primary Sources:
 - “Slave Code” (in Washington D.C.), 1862 – please read these laws with an eye toward the role played by technology in the laws governing enslaved peoples
 - *Lowell Offering*, selections, 1840
 - In-class exercise: please choose at least 2 articles and address the following questions:
 - When is it from?
 - What is the topic?
 - Who is the intended audience of the article or story?
 - What does the image communicate about factory life for women at that time? How does it do so?
 - How does it relate to the readings we read for class?

Week 4: Monday, February 15 – Americans on the Move

****Group 3 Discussion Questions Due****

Lecture/Discussion:

- Transportation and Communication Revolutions

Readings:

- Secondary Sources:
 - Tom Standage, “Strange, Fierce Fire,” in *The Victorian Internet*, pp. 25-40.
 - Thomas Andrews, “The Reek of the New Industrialism,” in *Killing for Coal*, 50—86.
- Primary Source:
 - Henry David Thoreau, “Sounds” in *Walden* (1854), 105—121

Week 5: Monday, February 22 – The Gilded Age and the Inventor

****Group 4 Discussion Questions Due****

****B-Weekly Reading Quiz****

Lecture/Discussion:

- The Telephone and Tesla (We will watch clips from the *PBS* documentary about Nikola Tesla in class, followed by discussion)

Readings:

- Secondary Sources
 - Thomas Hughes, “A Gigantic Tidal Wave of Human Ingenuity,” *American Genesis* 13—52 (1989)
 - Andrea Tone, “1873,” in *Devices and Desires: A History of Contraceptives in America*,
- Primary sources
 - “Impolite New York,” *New York Times*, January 6, 1907

Week 6: Monday March 1 – Systems

****Midterm Reflection paper****

Group 1 Discussion Questions Due*

Lecture

- Let There be Light! The Electric Light in American Culture

Readings

- Secondary Sources
 - Thomas Hughes, “The System Must be First,” in *American Genesis*, 185—220; 243—248.
 - Claudia Clark, “Watch Alice Glow: The New Jersey Radium Dialpainters, in *Radium Girls: Women and Industrial Health Reform 1910-1935*, 12—38
- Primary Sources
 - Selections from Frederick Taylor, *The Principles of Scientific Management* (1911)

Week 7: Monday, March 8 – War: what is it good for? Technology

****Group 2 Discussion Questions Due****

****500-Word Description of Primary Source for Final Paper Due****

****Bi-Weekly Reading Quiz****

Lecture/Discussion:

- The World Wars and Technology

Readings:

- Secondary Sources

- David Edgerton, “War,” in *The Shock of the Old*, 138—159
- Paul Boyer, “Justifications, Rationalizations, Evasions: Hiroshima, Nagasaki, and the American Conscience,” in *By the Bomb’s Early Light: American Thought and Culture At the Dawn of the Atomic Age* (1994), 181-196.
- Primary Sources
 - The “Franck Report” (June 1945): <https://fas.org/sgp/eprint/franck.html>

Monday, March 15 - Spring Break

Week 8: Monday, March 22 – Cold War America

****Group 3 Discussions Questions Due****

Lecture/Discussion:

- The Cold War in Context – Science and Technology

Readings:

- Secondary Sources
 - “Atomic Tattoos,” in *99% Invisible* (weblink to podcast on Canvas)
 - Elaine Tyler May, “Containment at Home: Cold War, Warm Hearth,” in *Homeward Bound: American Families in the Cold War Era* (1998), 19—38
- Primary Sources
 - Watch “A is For Atom” (1953), <https://archive.org/details/isforAto1953>
 - *Dr. Strangelove: Or How I Learned to Stop Worrying and Love the Bomb* (1964)
 - We will watch the film in class and discuss

Week 9: Monday, March 29 – Suburbia and Television

****Group 4 Discussion Questions Due****

****Bi-Weekly Reading Quiz****

Lecture/Discussion:

- Making Room for the TV in American Homes

Readings:

- Secondary Sources:
 - Andrew Needham, “The Valley of the Sun” and “Modernizing the Navajo” in *Power Lines: Phoenix and the Making of the Modern Southwest* (2014), 55—90; 123—156
 - Alexis C. Madrigal, “When the Revolution was Televised: Martin Luther King Jr. was a master television producer, but the networks had a narrow view of what the black struggle for equality could look like,” *The Atlantic*, April 1, 2018
- Primary Sources
 - “The Wild Intruder,” *Medic* (1954)

Week 10: Monday, April 5 – The Promise and Perils of Modern Medicine

****Group 1 Discussion Questions Due****

Lecture/Discussion:

- Technological change and the so-called “Golden Age” of Medicine

Readings:

- Secondary Sources
 - Bert Hansen, “Modern Imagery of Medical Progress: *Life* Looks at Medicine,” in *Picturing Medical Progress From Pasteur to Polio: A History of Mass Media Images and Popular Attitudes in America*, 207—255
- Primary Sources
 - *The Hospital* (1971); we will watch clips of this film in class and discuss alongside the readings and lecture.

Week 11: Monday April 12 – Consumption and Trash

****Group 2 Discussion Questions Due****

****Bi-Weekly Reading Quiz****

Lecture/Discussion:

- The Creation of the American Consumer

Readings:

- Secondary Sources
 - Lizbeth Cohen, “Reconversion: The Emergence of the Consumers’ Republic,” in *A Consumer’s Republic: The Politics of Mass Consumption in Postwar America*
 - Andrew Hurley, “From Factory Town to Metropolitan Junkyard: Postindustrial Transitions on the Urban Periphery,” *Environmental History*, 21 (2016), 3—29
- Primary Sources
 - Alfonso A. Narvaez, “Newark Residents Lose Fight to Ban Incinerator,” *The New York Times*, February 21, 1988
 - “Countdown to Collision” (1972) – film about environmental degradation in U.S., link is on Canvas

Week 12: Monday, April 19 – The Maintainers and Rethinking Innovation

****Group 3 Discussion Question Due****

Lecture/Discussion:

- Interrogating innovation

Readings

- Secondary Sources
 - David Edgerton, “Maintenance,” in *The Shock of the Old*, 75—102
 - Lee Vinsel and Andrew L. Russell, “The Problem with Innovation,” in *The Innovation Delusion*, (2020) 5-18
- Primary Source
 - John Oliver’s *Last Week Tonight*, “Infrastructure” (2015); we will watch this class and discuss

Week 13: Monday, April 26 – Computers

****Group 4 Discussion Questions Due****

Lecture/Discussion:

- Inventing the Computer

Readings

- Secondary Sources
 - Martin Campbell-Kelly and William Aspray, “The Shaping of the Personal Computer,” in *Computer: A History of the Information Machine*, 207—229
 - Marie Hicks. “When Winning is Losing: Why the Nation that Invented the Computer Lost Its Lead.” *Computer*. Vol. 51, No. 10 (Oct 2018). 48-57.
 - Nathan Ensmenger, “The Environmental History of Computing,” *Technology and Culture*, Vol 59 No. 4 (2018)
- Primary Sources
 - Bill Gates, “Open Letter to Hobbyists,” *Computer Notes*, February 3, 1976

Week 14: Monday, May 3 – The Internet (Its Benefits and Burdens)

Lecture/Discussion:

- Big Business, the Government, and the Making of the internet

Readings

- Secondary Sources
 - Stephanie Schulte, “The *WarGames* Scenario: Regulating Teenagers and Teenage Technology,” pp. 23-55
 - Slava Gerovitch. “InterNyet: Why the Soviet Union Did Not Build a Nationwide Computer Network.” *History and Technology*. Vol. 24, no. 4 (December 2008), 335-350.
- Primary Sources
 - *War Games* (1983)
 - Bill Gates. *The Internet Tidal Wave*, Memo, May 26, 1995.

****Monday, May 10 – Final Paper Due on Canvas****